ABSTRACT OF THE DISCLOSURE

A method and system for graceful slowlink deletion and subsequent fast link addition in an inverse multiplexing over asynchronous transfer mode (IMA) group are disclosed in which data is received on one or more data links. The received data is written into a buffer for each data link. The data in the buffer for each data link is read faster than the data is written into the buffer. By reading data from a DCB faster than the data is written into the DCB, the differential delay caused by a slow link deletion can be reduced. As such, a fast link, which otherwise could not be added to an IMA group because of the slow link deletion, can now be added without writing over unread data.